

IN THE SPECIFICATION

Please amend the Specification as described below.

Amend paragraph [0020] as follows:

[0020] Figure 4 ~~[[is]]~~ is a block diagram illustrating exemplary hardware that can be used to implement various aspects of the invention.

Amend paragraph [0041] as follows:

[0041] In another embodiment, the base station 102 receives a communication signal from the remote unit 104. The location engine 318 receives navigation information and determines the location, velocity and direction of the remote unit and outputs them to the controller 316. The controller 314 determines hypotheses about the received signal frequency and PN-offset based upon the output of the location engine. The search engine 314, using the hypothesis determined by the controller 316, correlates to the signal received from the mobile terminal ~~[[102]]~~ 104. In one embodiment, the location engine 318 receives navigation information in the form of signals from the remote terminal ~~[[102]]~~ 104 and a navigation system, such as, the Global Positioning System (GPS) or LORAN-C, or other standard navigational system. In another embodiment, the location engine 318 receives navigation information from the remote terminal ~~[[102]]~~ 104 and the cellular infrastructure. In yet another embodiment, the location engine receives navigation signals from the remote terminal ~~[[102]]~~ 104 and both a standard navigation system and the cellular infrastructure. In another embodiment, the remote unit 104 location, velocity, and direction are determined in the remote unit and transmitted to the base station 102.

Amend paragraph [0043] as follows:

[0043] The output of receiver 302 is connected to mixer 410 to downconvert the received signal with a reference signal at the appropriate frequency. As discussed, it is not known what frequency the reference signal needs to be because the frequency of the received signal varies due to Doppler caused by the relative velocity between the mobile terminal and the base station. Thus, multiple mixers 410 with different reference frequencies (f_1 , f_2 , ..., f_n), based upon the selected hypothesis, are needed. The output of the mixers are connected to a second mixer 412 where the locally generated PN code is mixed with the received signal. The locally generated PN code used in the mixers 412 have different PN-offsets based upon the selected hypothesis to cover the expected PNoffsets (PN_1 , PN_2 , ..., PN_n) corresponding to the distance between the remote terminal and the base ~~station~~ station.